

REMARKS

Favorable reconsideration and allowance of this application are requested.

I. Response to 35 USC §112 Issues

The Examiner rejects the pending claims on the basis that the expression of "molecular weight" is not definite.

In response, applicants note that it is well known in the art that molecular weights of final polyurethanes are typically weight average molecular weights measured by GPC. With respect to the relatively low molecular weight polyols that are used to build the polyurethanes, their molecular weights are measured by an acetic anhydride method which is likewise well known in the art. Specifically, the average molecular weights of polyols are measured by the well known acetic anhydride method according to ASTM D2849-69. This ASTM method describes the currently accepted acetic or phthalic anhydride methods for measuring the hydroxyl contents of polyethers and polyesters which results in the average molecular weights.

With regard to this particular application, it should be noted that "average molecular weights" of the polyol components are disclosed in the Examples on page 12. As can be seen from the attached copy of the data sheet for Dow Corning® 1248 polyol, it is the average hydroxyl equivalent weight that is cited thereby connoting measurement by ASTM D2849-69.

Therefore, the pending claims have been amended so as to refer to average molecular weight of the recited polyol components. It is suggested that, in the context of the skilled person in the art, reference to an "average molecular weight" for polyols is entirely definite and the specification is entirely enabling within the meaning of the statute. Hence, withdrawal of the rejections advanced under 35 USC §112 is in order.

II. Response to Publication-Based Issues

Prior claims 1-12 attracted rejections under 35 USC §§ 102(b), (e) and 103(a) as based on WO 01/02455 to Irle et al (using USP 6,559,225 as an English-language translation). For ease of discussion, reference will be made to USP 6,559,225 to Irle et al, it being understood that such reference likewise applies to its published International Counterpart WO 01/02455. As will become evident from the following discussion, Irle et al does not anticipate or render obvious the present invention.

In this regard, it should be kept in mind that the present invention is preferably embodied in **low gloss compositions** – i.e., compositions having a 60⁰ gloss of ≤ 40 upon drying -- comprising a self-crosslinkable polyurethane.

Irle et al discloses polyurethane dispersions for use in lacquers and coating. The accompanying Declaration of Richard Coogan evidences that the polyurethane dispersions of Irle et al are not “low gloss” compositions as defined by the presently pending claims. Specifically, as noted therein Examples 1 to 4 in Irle et al were replicated and the 60⁰ gloss for each composition was measured. It was found in all examples that the compositions of Irle et al possessed 60⁰ gloss which is essentially **double** the uppermost gloss limit required by the claims of the present application. Hence, the Irle et al compositions cannot be considered low gloss.

Therefore, Irle et al cannot anticipate the presently claimed invention. Nor can Irle et al render the presently claimed invention “obvious”. Specifically, there is no disclosure or suggestion in Irle et al which would direct an ordinarily skilled person toward providing low gloss compositions as defined in the pending claims herein.

Therefore, withdrawal of Irle et al as a reference against the pending claims is in order.

III. Conclusion

Every effort has been made to advance prosecution of this application to allowance. Therefore, in view of the amendments and remarks above, applicant suggests that all claims are in condition for allowance and Official Notice of the same is solicited.

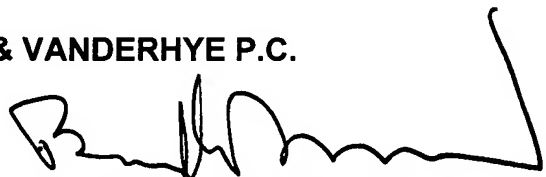
Should any small matters remain outstanding, the Examiner is encouraged to telephone the Applicants' undersigned attorney so that the same may be resolved without the need for an additional written action and reply.

An early and favorable reply on the merits is awaited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____



Bryan H. Davidson
Reg. No. 30,251

BHD:bcf
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

DOW CORNING® 1248 Fluid

FEATURES

As a fibre lubricant

- Greater compatibility with organic lubricant components than conventional silicones
- More scourable than conventional silicones
- More thermally stable than conventional organic lubricants

As a fabric coating additive

- Reduced surface drag
- Improved abrasion resistance
- Anti-blocking agent
- Reduced swelling of the film after contact with water

Silicone glycol graft copolymer with secondary hydroxyl functionality

APPLICATIONS

- Lubricant for synthetic fibre processing.
- Additive to polyurethane fabric coating resin systems.

TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

Parameter	Unit	Value
Appearance		Clear to hazy liquid
Colour APHA		60
Active ingredient	%	Above 95°C
Viscosity at 25°C	mm ² .s ²¹	160
Secondary hydroxyl	%	1.2
Average hydroxyl equivalent weight		2000
Specific gravity at 25°C/15.6°C		0.98
Refractive index		1.411
Flash point - closed cup	°C	Above 100
Surface tension	dyne cm ²¹	2.15
Pour point	°C	-85
Coefficient of expansion	cc/°C	9.3 x 10 ²¹

DESCRIPTION

DOW CORNING 1248 Fluid is a silicone glycol graft copolymer with secondary hydroxyl functionality. The polymer has a combination of organoreactivity from the glycol group as well as properties typical of a polydimethylsiloxane fluid. The glycol group can be chemically bonded into any system which is reactive towards alcohols to impart durable silicone properties to that system.

DOW CORNING 1248 Fluid is used for two very different applications within the textile industry. One application is as a lubricant for synthetic fibre processing. The organic portion of the polymer

provides greater compatibility with organic components in the lubricant formulation. The hydroxyl functionality provides better scourability than traditional polydimethylsiloxanes. And finally, the polydimethylsiloxane portion is more thermally stable than conventional organic lubricants such as butyl stearate, mineral oils or organic glycol copolymers.

The second application is as an additive to polyurethane fabric coating resin systems. Because this polymer reacts into the coating, the typical silicone properties imparted are durable. A typical example is modification of transfer-coated aromatic polyurethane skin coats for

the production of non-porous coated breathable fabrics. Addition levels of less than 2% based on polyurethane solids should be used to avoid possible problems with subsequent tape welding.

HANDLING PRECAUTIONS

PRODUCT SAFETY
INFORMATION REQUIRED FOR
SAFE USE IS NOT INCLUDED.
BEFORE HANDLING, READ
PRODUCT AND SAFETY DATA
SHEETS AND CONTAINER
LABELS FOR SAFE USE,
PHYSICAL AND HEALTH
HAZARD INFORMATION. THE
SAFETY DATA SHEET IS
AVAILABLE FROM YOUR LOCAL
DOW CORNING SALES
REPRESENTATIVE.

USABLE LIFE AND STORAGE

When stored at or below 32°C in the original unopened containers, this product has a usable life of 30 months from the date of production.

PACKAGING

This product is available in 190.5kg (420lbs) drums.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Health, Environment and Regulatory Affairs specialists available in each area.

For further information, please consult your local Dow Corning representative.

WARRANTY INFORMATION - PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because

conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. Dow Corning specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless Dow Corning provides you with a specific, duly signed endorsement of fitness for use, Dow Corning disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.

Table 1: Compatibility

<i>Solvent</i>	<i>DOW CORNING 1248 Fluid weight addition, %</i>	
	1.0	10.0
Water	Insoluble	Insoluble
Ethanol	Soluble	Soluble
Isopropanol	Soluble	Soluble
Methylene Chloride	Soluble	Soluble
N - Hexane	Soluble	Soluble
Toluene	Soluble	Soluble
Mineral Oil:		
- high viscosity	Dispersible	Dispersible
- low viscosity	Soluble	Soluble
Butyl Stearate	Soluble	Soluble